CLAIMS

- Device for skin dermabrasion through gentle contact of the skin with an abrasive, the device comprising a handleable housing (10)and abrasive driving characterized by the fact that it comprises, combination, a curved abrasive surface (30) held by a support (34) mounted in or on the housing (10, 18) for an oscillatory motion allowing oscillation of the curved 10 abrasive surface (30) about its axis (16), and a support surface (40) surrounding the oscillatory abrasive surface (30) at least on two opposing sides leaving a gap to allow oscillating motion of the abrasive surface (30), the device being arranged in such a way as to allow, by the 15 application of the support surface (40) against the skin (50) and around the region of the skin to be treated, the gentle contact of this region of the skin with the oscillating abrasive surface (30).
- 20 2. Dermabrasion device according to claim 1, characterized in that the curved abrasive surface (30) is at the level of the support surface (40) or inset relative to this surface.
- 3. Dermabrasion device according to claim 1 or 2, characterized in that the abrasive surface (30) is carried on a piece (32) of rigid or flexible material, said piece (32) being removably mounted on the oscillating support (34).
- Dermabrasion device according to claim 3,
 characterized in that it includes several interchangeable pieces (32) each with a different abrasive surface (30) and/or of a different size.

- 5. Dermabrasion device according to claim 3 or 4, characterized in that it includes at least one removable piece (32) having a double face and mounted in a reversible way on the oscillating support (34).
- 5 6. Dermabrasion device according to claim 5, characterized in that the removable piece has on one side a curved abrasive surface (30) and on the other side a massage surface (31a, 31b).
- 7. Dermabrasion device according to any of claims 3 to 6, characterized in that the support surface (40) is constituted by the edges of a U-shaped element (36) that surround the piece (32) with the abrasive surface (30), this piece (32) being removable through the open end of the U-shaped element (40) of the support surface.
- 15 8. Dermabrasion device according to any of the previous claims, characterized in that said support surface (40) is constituted by the edges of an element (36) removably-mounted on the housing.
- Dermabrasion device according to any of claims 1 to 7,
 characterized in that said support surface (40) is constituted by the edges of the housing.

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- 10. Dermabrasion device according to any of the previous claims, characterized in that the driving means (24) allow variation of the oscillation speed of the oscillating abrasive surface (30).
- 11. Dermabrasion device according to any of the previous claims, characterized in that the oscillating abrasive surface (30) has an oscillation speed between 0.5 to 200 oscillations per second.
- 30 12. Dermabrasion device according to any of the previous claims, characterized in that the driving means comprise a

stirrup (12) solid with a lever (14) mounted to pivot on the frame (10, 18), the stirrup (12) surrounding a cam (20) driven by the shaft (22) of an electric motor (24), said support (32) of the abrasive surface (30) being mounted at the end of the lever (14).

- 13. Dermabrasion device according to any of the previous claims, characterized in that the oscillation axis of the curved surface (30) is inclined to the axis of the housing (10).
- 14. Dermabrasion device according to any of the previous claims, characterized in that it includes means for driving said support (34) with an oscillating motion and to-and-fro motion perpendicular to oscillating motion, simultaneously with or instead of said oscillating motion, to allow incidental use of the device to carry out a massage.
 - 15. Dermabrasion device according to any of claims 1 to 13, characterized in that the support carrying the abrasive (30) is cylindrical and has at least one curved abrasive surface on its cylindrical surface.
- 20 16. Process for cosmetic skin treatment by microepidermabrasion, using the device according to any of the previous claims.
- 17. Process according to claim 16, characterized in that a cleaning product is applied beforehand to the skin to be treated.
- 18. Process for cosmetic skin treatment including a preliminary microepidermabrasion according to claim 16 or 17, followed by application on the thus-treated epidermis of a treating product that is made to penetrate the skin tissue by the application of a high-frequency flux of

electromagnetic energy and/or by the application of electromagnetic laser radiation and/or by light.

19. Process according to any of claims 16 to 18, for an anti-wrinkle treatment, treatments for blemishes, stretch marks, acne, scars, depilation or for scalp treatment.

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20. Use of the device according to any of claims 1 to 14 for skin microepidermabrasion.